# U.S. Patent Application of Meada

Serial No.: 09/111,578

#### IN THE CLAIMS:

Applicant notes comments in the Remarks section for clarification.

Kindly amend the claims as follows:

1. (3x-amended) A reel rotation and detection mechanism for a video cassette deck comprising:

a light emitting element for emitting light used to detect <u>at least</u> the leading end and the entraining end of a magnetic tape within a cassette arranged within the video cassette deck[,];

a light guiding member for guiding the light from the light emitting element into the cassette for detecting the leading and entraining ends of a magnetic tape, and <u>for directly guiding a portion of</u> the light onto the side of the reel for detection of the reel[,];

at least a first light receiving element for receiving the light guided onto the side of the reel[,]; a light passing portion [or] and a light screening portion provided on the reel so as to cross the light path reaching from the light guiding member to the <u>first</u> light receiving element through the rotation of the reel[,];

[characterized in that] the light emitting element and the <u>first</u> light receiving element are provided under a deck chassis for mounting main components including the reel of the video cassette deck[,]; and

the light guiding member guid[es]ing at least the light from the light emitting element below the deck chassis to a point above the deck chassis and thereafter to the <u>first</u> light receiving element under the deck chassis by way of [a] the light passing portion provided on the reel when aligned with an opening portion on the deck chassis.

2. (previously amended) A reel rotation and detection mechanism for a video cassette deck according to claim 1, wherein:

the deck chassis has an opening portion for light transmission for transmitting the light towards the <u>first</u> light receiving element.

- 3-7. (canceled without prejudice)
- $8. \, (1x \, amended \, ) \, A \, reel \, rotation \, and \, detection \, mechanism \, for \, a \, video \, cassette \, deck \, according \, to \, claim \, and \, detection \, mechanism \, for \, a \, video \, cassette \, deck \, according \, to \, claim \, and \, detection \, mechanism \, for \, a \, video \, cassette \, deck \, according \, to \, claim \, and \, detection \, mechanism \, for \, a \, video \, cassette \, deck \, according \, to \, claim \, and \, detection \, mechanism \, for \, a \, video \, cassette \, deck \, according \, to \, claim \, according \, a$
- 1, wherein:

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the light guiding member has a pillar portion extending through the deck chassis to guide the light coming from the light emitting element into the cassette on the deck chassis, and a branch portion extending sideways from the pillar portion to guide the light to the <u>at least first</u> light receiving element, the branch portion being positioned above the deck chassis and opposite to the light passing portion [or] <u>and</u> the light screening portion provided on the reel on the deck chassis.

9. (1x amended) A reel rotation and detection mechanism for a video cassette deck according to claim 2, wherein:

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the light guiding member has a pillar portion extending through the deck chassis to guide the light coming from the light emitting element into the cassette on the deck chassis, and a branch portion extending sideways from the pillar portion to illuminate the light to the <u>at least first</u> light receiving element, the branch portion being positioned above the deck chassis and opposite to the light passing portion [or] <u>and</u> the light screening portion provided on the reel on the deck chassis.

10. (2x amended) A reel rotation and detection mechanism for a video cassette deck according to claim 1, wherein;

the light passing portion [or] <u>and</u> the light screening portion is provided on a disk portion provided integrally on [a] <u>the</u> reel[,]; and

the branch portion is opposite from above the light passing portion [or] and the light screening portion.

11. (2x amended) A reel rotation and detection mechanism for a video cassette deck according to claim 2, wherein;

the light passing portion [or] <u>and</u> the light screening portion is provided on a disk portion provided integrally on [a] <u>the</u> reel[,]; and

the branch portion is opposite from above the light passing portion [or] and the light screening portion.

12. (2x amended) A reel rotation and detection mechanism for a video cassette deck according to claim 8, wherein:

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the light passing portion [or] <u>and</u> the light screen<u>ing</u> portion is provided in a disk portion provided integrally on the reel[,]; and

the branch portion is at least partially coextensive with the light passing portion [or] <u>and</u> the light screening portion.

13. (2x amended) A reel rotation and detection mechanism for a video cassette deck according to claim 9, wherein:

the light passing portion [or] <u>and</u> the light screening portion is provided in a disk portion provided integrally on the reel[,]; and

the branch portion is at least partially coextensive with the light passing portion [or] <u>and</u> the light screening portion.

14. (2x amended) A reel rotation and detection mechanism for a video cassette deck according to claim 1, wherein:

the light emitting element and the <u>at least first</u> light receiving element are engaged on a substrate provided under the deck chassis.

15. (2x amended) A reel rotation and detection mechanism for a video cassette deck according to claim 2, wherein:

the light emitting element and the <u>at least first</u> light receiving element are engaged on a substrate provided under the deck chassis.

16. (2x amended) A reel rotation and detection mechanism for a video cassette deck according to claim 8, wherein:

the light emitting element and the light receiving element are engaged on a substrate provided under the deck chassis.

17. (2x amended) A reel rotation and detection mechanism for a video cassette deck according to claim 9, wherein:

the light emitting element and the light receiving element are engaged on a substrate provided under the deck chassis.

18. (2x amended) A reel rotation and detection mechanism for a video cassette deck according to claim 1, [wherein] <u>further comprising</u>: at <u>least a second</u> light receiving element for tape <u>end</u> detection is provided under the deck chassis.

19. (2x amended) A reel rotation and detection mechanism for a video cassette deck according to claim 2, [wherein] <u>further comprising</u>: at <u>least a second</u> light receiving element for tape <u>end</u> detection is provided under the deck chassis.

20. (2x amended) A reel rotation and detection mechanism for a video cassette deck according to claim 8, [wherein] <u>further comprising</u>: at <u>least a second</u> light receiving element for tape <u>end</u> detection is provided under the deck chassis.

21. (2x amended) A reel rotation and detection mechanism for a video cassette deck according to claim 9, [wherein] <u>further comprising</u>: at <u>least a second</u> light receiving element for tape <u>end</u> detection is provided under the deck chassis.

22. (2x amended) A reel rotation and detection mechanism for a video cassette deck according to claim 18, wherein the <u>second</u> light receiving element for detecting the tape, together with the light emitting element and the <u>first</u> light receiving element are arranged on a substrate under the deck chassis.

23. (2x amended) A reel rotation and detection mechanism for a video cassette deck according to claim 19, wherein the second light receiving element for detecting the tape, together with the light emitting element and the <u>first</u> light receiving element are arranged on a substrate under the deck chassis.

24. (2x amended) A reel rotation and detection mechanism for a video cassette deck according to claim 20, wherein the second light receiving element for detecting the tape, together with the light emitting element and the first light receiving element are arranged on a substrate under the deck chassis.

25. (2x amended) A reel rotation and detection mechanism for a video cassette deck according to claim 20, wherein the <u>second</u> light receiving element for detecting the tape, together with the light emitting element and the <u>first</u> light receiving element are arranged on a substrate under the deck chassis.

26. (1x amended) A reel rotation and detection mechanism for a video cassette deck comprising: a reel rotatably mounted on [the] a cassette deck chassis and having a disk portion generally

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proximate to said deck chassis [and] provided with an opening portion for transmission of light through said disk portion;

a light emitting element for emitting light used to detect <u>at least</u> the leading end and the entraining end of a magnetic tape within a cassette arranged within the video cassette deck[,];

a light guiding member for guiding the light from the light emitting element into <u>at least</u> the cassette for detecting the leading and entraining ends of [a] <u>the</u> magnetic tape, and <u>for</u> directly guiding <u>a portion of</u> the light onto the side of the reel for detection of the reel[,];

at least a first receiving element for receiving the light guided onto the side of the reel[,]; a light passing portion [or] and a light screening portion provided on the reel so as to cross the light path reaching from the light guiding member to the <u>first</u> light receiving element through the rotation of the reel[,];

[characterized in that] the light emitting element and the <u>first</u> light receiving element are provided under a deck chassis for mounting main components including the reel of the video cassette deck[,]; and the light guiding member guid[es]ing the light from the light emitting element below the deck chassis to a point above the deck chassis and thereafter to the light receiving element under the deck chassis by way of [a] <u>the</u> light passing portion provided on the reel when aligned with [an] <u>the</u> opening portion on the deck chassis.

27. (1x amended) A reel rotation and detection mechanism for a video cassette deck comprising: a video cassette deck chassis having [an] at least a first opening therein for permitting light to pass therethrough;

a reel rotatably mounted on the cassette deck chassis and having a disk portion generally proximate to the deck chassis [and] provided with a <u>light passing portion</u> [opening] portion for transmission of light through said disk portion[,];

said <u>light passing</u> [opening] portion in said disk being arranged to selectively align said <u>light passing</u> [opening] portion in said disk with said <u>first</u> opening in said deck chassis along a direction generally normal to said deck chassis;

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a light emitting element for emitting light used to detect the <u>at least</u> leading end and the entraining end of a magnetic tape within a cassette arranged within the video cassette deck[,];

at least a first light guiding member for guiding the light from the light emitting element into the cassette for detecting the leading and entraining ends of a magnetic tape, and <u>for directly guiding a portion</u> of the light onto the side of the reel for detection of the reel[,]:

at least a first light receiving element for receiving the light guided onto the side of the reel[,];
[a] the light passing portion [or] and a light screening portion provided on the reel so as to cross
the light path reaching from the light guiding member to the at least first light receiving element through the
rotation of the reel[,];

[characterized in that] the light emitting element and the <u>at least first</u> light receiving element are provided under a deck chassis for mounting main components including the reel of the video cassette deck[,]; and

the light guiding member guid[es]ing the light from the light emitting element below the deck chassis to a point above the deck chassis and thereafter to the <u>at least first</u> light receiving element under the deck chassis by way of [a] the light passing portion provided on the reel when aligned with [an] the <u>at least first</u> opening portion on the deck chassis.